

**Science**  
**Second Preparatory**  
**First Term**

**MULTIPLE CHOICE**  
**QUESTIONS**  
**“ M.C.Q ”**

## I - Lesson One :

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- 1 - Elements have been arranged (organized) (classified) in order to.....
- a. ease (facilitate) their study
  - b. find the relation between elements and their properties
  - c. (a) and (b)
  - d. no correct answer
- 2 - The most important attempts of elements classification is (are).....
- a. Mendeleev's periodic table
  - b. Mosely's periodic table
  - c. the modern periodic table
  - d. all the previous answers
- 3 - The first real periodic table is.....
- a. Mendeleev's periodic table
  - b. Mosely's periodic table
  - c. the modern periodic table
  - d. all the previous answers
- 4 - The number of elements in Mendeleev's periodic table is.....elements
- a. 92
  - b. 67
  - c. 76
  - d. 118
- 5 - Mendeleev organized the elements of similar physical and chemical properties in vertical columns known as.....
- a. periods
  - b. groups
  - c. tables
  - d. rows
- 6 - Mendeleev classified the elements of each group into.....sub-groups
- a. 7
  - b. 2
  - c. 4
  - d. 3
- 7 - The scientific idea upon which the elements are classified in Mendeleev's periodic table is.....
- a. arranging elements in an ascending order according to atomic weights
  - b. arranging elements in an ascending order according to atomic numbers
  - c. arranging elements in a descending order according to atomic weights
  - d. arranging elements in a descending order according to atomic numbers



8 – Mendeleev discovered that the atomic weight of elements.....on moving from the left side to the right side through the period

- a. increases                                      b. decreases                                      c. remains constant

9 – Mendeleev discovered that the properties of elements were repeated periodically by the beginning of each new.....

- a. group    b. period    c. cell

10 – The scientist who left vacancies in his table to be filled with suitable discovered elements in future is.....

- a. Mosely    b. Rutherford    c. Bohr    d. Mendeleev

11 – One of the advantages of Mendeleev's table that is correcting the wrongly estimated .....of some elements

- a. atomic numbers                                      b. electron numbers                                      c. atomic weights

12 – Mendeleev made a disturbance in the ascending order of the atomic weights of some elements to put them in.....that suit their properties

- a. periods    b. groups    c. tables    d. places

13 – Mendeleev had to deal with the isotopes as.....elements

- a. similar    b. same    c. different    d. identical

14 – The nucleus of the atom contains.....

- a. negative electrons                                      b. negative protons                                      c. positive protons

15 – The scientist who discovered that the nucleus of the atom contains positively charged protons is.....

- a. Bohr    b. Mendeleev    c. Rutherford    d. Mosely

16 – The English scientist Mosely discovered after studying x-rays properties that the periodic properties of elements are related to their.....

- a. atomic numbers                                      b. atomic weights                                      c. mass numbers

17 - .....added zero group that includes inactive gases

- a. Mendeleev                      b. Mosely                      c. Bohr                      d. Rutherford

**18** - The scientist.....had discovered the **main energy levels**

- a. Mosely                                      c. Bohr  
b. Hofmann                                      d. Mendeleev

19 - The number of energy levels in the heaviest known atom is.....levels

- a. 5                                      b. 7                                      c. 9                                      d. 11

20 - The scientific idea upon which the elements are categorized (arranged) in the modern periodic table is arranging of elements .....

- a. according to their atomic numbers  
b. according way of filling of energy sublevels with electrons  
c. according to their atomic masses  
d. (a) and (b) are correct answers

**21** - The number of known elements in the modern periodic table till now is.....

- a. 18                                      b. 26                                      c. 92                                      d. 118

22 - The number of elements which exist in nature is.....

- a. 26                                      b. 95                                      c. 118                                      d. 92

23 - The number of elements which are prepared artificially is.....

- a. 92                                      b. 26                                      c. 23                                      d. 1

24 - The modern periodic table consists of.....horizontal periods

- a. 18                                      b. 118                                      c. 7                                      d. 6

25 - The modern periodic table consists of.....vertical groups

- a. 18                                      b. 7                                      c. 118                                      d. 92

26 - The elements of s-block are located on the.....side of the table

- a. left                                      b. right                                      c. middle



27 – The elements of s-block are arranged in.....groups

- a. 5                                      b. 3                                      c. 7                                      d. 2

28 – The block that contains groups (1A) and (2A) is called.....block

- a. s                                      b. p                                      c. d                                      d. f

29 – The elements of p-block are located on the.....side of the table

- a. left                                      b. right                                      c. middles

30 – Groups of p-block take the letter A except group.....

- a. 1A                                      b. 2A                                      c. 8                                      d. zero

31 – The elements of p-block are arranged in.....groups

- a. 2                                      b. 7                                      c. 6                                      d. 5

32 – The block that contains groups (3A) and (7A) is called.....block

- a. s                                      b. p                                      c. d                                      d. f

33 – Nobel gases are located in group.....

- a. 7A                                      b. 8                                      c. 17                                      d. 18

34 – The new number of zero group is.....

- a. Zero                                      b. 17                                      c. 18                                      d. 16

35 – Noble (inert) gases are located in.....block

- a. s                                      b. p                                      c. d                                      d. f

36 – Elements of d-block are located at the.....of the modern periodic table

- a. middle                                      c. left  
b. bottom                                      d. right

37 – Groups of d-block take the letter B except group.....

- a. 1B                                      c. 8  
b. 2B                                      d. Zero

38 – Elements of d-block are arranged in.....groups

- a. 5                                      b. 10                                      c. 15                                      d. 7

39 – Elements of d-block are known as.....elements

- a. lanthanides                                      b. actinides                                      c. transition

40 – The transition elements **starts** to **appear** from the.....period

- a. 1<sup>st</sup>                                      b. 2<sup>nd</sup>                                      c. 3<sup>rd</sup>                                      d. 4<sup>th</sup>

41 – The **number** of **elements** in **period (4)** is...the **number** of **elements** in **period (3)**

- a. more than                                      b. less than                                      c. equal to                                      d. double

42 – Elements of f-block are located at the.....of the modern periodic table

- a. middle                                      b. bottom                                      c. left                                      d. right

43 – Lanthanides and actinides are located in the.....block

- a. s                                      b. p                                      c. d                                      d. f

44 – The number of energy levels occupied by electrons in the atom of an element indicates its.....

- a. atomic number                                      c. group number  
b. mass number                                      d. period number

45 – The number of electrons in the outermost energy level of the atom of an element indicates its.....number

- a. atomic                                      b. mass                                      c. group                                      d. period

46 – The element **X** lies in.....in the modern periodic table

- a. period (2) and group (2A)                                      c. period (3) and group (2A)  
b. period (2) and group (3A)                                      d. period (3) and group (4A)

47 – **Helium** lies in group.....

- a. 1A                                      b. 2A                                      c. 15                                      d. 18 (zero)



48 – The element which its atomic number (2) is.....

- a. transition element
- b. an inert gas
- c. metallic element
- d. halogen element

49 – The element which its atomic number (18) is.....

- a. transition element
- b. an inert gas
- c. metallic element
- d. halogen element

50 – The number of elements in the 3<sup>rd</sup> period of the modern periodic table is.....

- a. 2
- b. 8
- c. 18
- d. 32

51 – The number of electrons which saturate the first four energy levels can be obtained (calculated) from the relation.....

- a.  $2n$
- b.  $2n^3$
- c.  $2n^2$

52 – The atomic number of elements equals.....

- a. the sum of the numbers of neutrons inside the nucleus
- b. the sum of the numbers of electrons rotating in its energy levels
- c. the number of protons inside the nucleus
- d. (b) and (c) are correct

53 – The number of negative electrons in the atom at its normal state equals.....

- a. number of protons
- b. number of neutron
- c. twice the number of protons
- d. half the number of neutrons

54 – The number of protons and neutrons inside the nucleus of the atom of an element is known as.....

- a. atomic number
- b. mass number
- c. period number
- d. group number

55 – The atomic number of an element is an integer and it increases from the preceding element in the same period by.....electron (s)

- a. 1
- b. 2
- c. 3
- d. 4

56 - The **atomic number** of an element which lies in **period 4** and **group 2A** is.....

- a. 4                      b. 18                      c. 12                      d. 20

57 - The element which locates in **period (3)** and **group (3A)** is.....

- a.  $_{13}\text{Al}$                       b.  $_{5}\text{B}$                       c.  $_{11}\text{Na}$                       d.  $_{15}\text{P}$

58 - The **atomic number** of an element exists in **group (7A)** and **period (2)** is.....

- a. 12                      b. 7                      c. 9                      d. 17

~~59~~ - An element in the **third** period and group number **13**, the number of neutrons in its nucleus equals **14**, so its mass number equals.....

- a. 27                      b. 9                      c. 15                      d. 20

**60** – Elements of **group (6A)** in the periodic table have the same.....

- a. number of protons
- b. number of energy levels occupied by electrons
- c. number of neutrons
- d. number of electrons in the outer levels

**61** – In the periodic table, elements which are **identical in properties** lie in the same...

- a. period      b. group      c. nucleus      d. row

62 - The chemical properties of calcium ( $_{20}\text{Ca}$ ) are similar to those of.....

- a.  ${}_{19}\text{K}$       b.  ${}_{12}\text{Mg}$       c.  ${}_{25}\text{Mn}$       d.  ${}_{3}\text{Li}$

63 - The element whose **atomic number** is (17) is **similar** in its **chemical construction** to the element which its **atomic number** is.....

- a. 2                      b. 7                      c. 9                      d. 10

64 - Which of the following belongs to the **same group** in the periodic table?.....

- a.  ${}_{11}\text{Na}, {}_6\text{C}$       b.  ${}_{11}\text{Na}, {}_3\text{Li}$       c.  ${}_{11}\text{Na}, {}_{30}\text{Cu}$       d.  ${}_{11}\text{Na}, {}_{10}\text{Ne}$

65 - All the following elements are located in group (2A) **except**.....

- a.  ${}_4\text{Be}$                       b.  ${}_{20}\text{Ca}$                       c.  ${}_{11}\text{Na}$                       d.  ${}_{12}\text{Mg}$



66 – Elements of the **same period** in the modern periodic table have the same...

- a. number of protons
- b. number of energy levels occupied by electrons
- c. number of neutron
- d. number of electrons in the outer levels

67 – In the periodic table, elements which are **different** in **properties** lie in the same...

- a. period
- b. group
- c. nucleus
- d. column

68 – Which of the following elements in the **same period** with  ${}_{12}\text{Mg}$ ?.....

- a.  ${}_7\text{N}$
- b.  ${}_{15}\text{P}$
- c.  ${}_3\text{Li}$
- d.  ${}_{20}\text{Ca}$

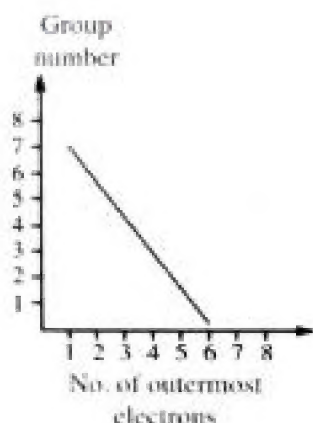
69 – Which of the following elements locates in the **third period**?.....

- a.  ${}_7\text{N}$
- b.  ${}_{15}\text{P}$
- c.  ${}_3\text{Li}$
- d.  ${}_{19}\text{K}$

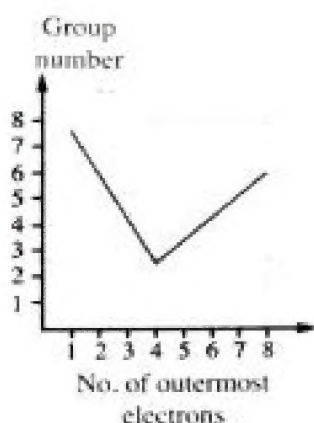
70 – Two elements  ${}_{15}^{31}\text{P}$  and  ${}_{16}^{32}\text{S}$  are similar in.....

- a. number of group and protons
- b. number of period and neutrons
- c. number of group and neutrons
- d. number of period and protons

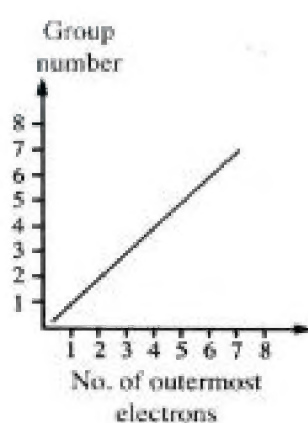
71 – Which of the following graphs represents the **relation** between the **number of electrons in the outermost energy level** and the **group number**, through the 3<sup>rd</sup> period in the modern periodic table? Why?



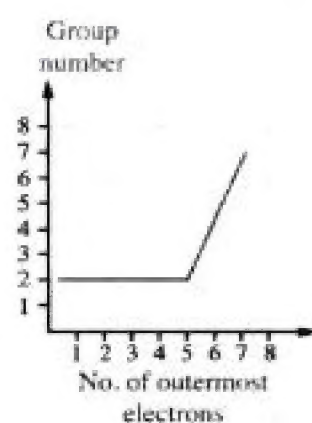
(A)



(B)



(C)



(D)

## 2 - Lesson Two :

1 - The atomic radius is used as a measurement of the atomic size of the atom and its measuring unit is.....

- a. metre
- b. millimeter
- c. nanometre
- d. picometre

2 - In groups, by increasing the atomic number.....

- a. atomic size decreases
- b. atomic size increases
- c. atomic radius increases
- d. no correct answer

3 - In periods, by increasing the atomic number.....

- a. atomic size decreases
- b. atomic size increases
- c. atomic radius increases
- d. no correct answer

4 - .....is the element that has the smallest atomic size in the periodic table

- a. F
- b. O
- c. Cs
- d. Na

5 - .....is the element that has the largest atomic size the periodic table

- a. F
- b. O
- c. Cs
- d. Na

- In group (1A), the atomic size of rubidium ( $_{37}\text{Rb}$ ) is greater than that of.....

- a.  $_{3}\text{Li}$
- b.  $_{11}\text{Na}$
- c.  $_{19}\text{K}$
- d. (a), (b) and (c)

- In period (2), the atomic size of oxygen ( $_{8}\text{O}$ ) is greater than that of.....

- a.  $_{6}\text{C}$
- b.  $_{9}\text{F}$
- c.  $_{3}\text{Li}$
- d.  $_{5}\text{B}$

- In the opposite figure,.....represents the ascending arrangement for the element (X, Y and Z) according to the atomic size

- a.  $Z > Y > X$
- b.  $Y < X < Z$
- c.  $Y > Z > X$
- d.  $X < Y < Z$

X	Y		
Z			



6 - From the polar compounds is (are).....

- a. ammonia molecule
- b. water molecule
- c. methane molecule
- d. (a) and (b)

7 - Which of the following is a metallic element?.....

- a.  $_{12}\text{Mg}$
- b.  $_{17}\text{Cl}$
- c.  $_{8}\text{O}$
- d.  $_{10}\text{Ne}$

8 - During the chemical reactions, metal atoms tend to.....

- a. lose electrons and change into negative ions
- b. gain electrons and change into negative ions
- c. lose electrons and change into positive ions
- d. gain electrons and change into positive ions

9 - The electronic structure of the positive ions is similar to that of the nearest.....

- a. preceding inert gas
- b. following inert gas
- c. next inert gas
- d. similar inert gas

10 - Positive ion carries a number of positive charges equal to the number of.....

- a. gained electrons
- b. lost electrons
- c. shared electrons
- d. lost protons

11 - All the followings have the same electronic configuration of neon ( $_{10}\text{Ne}$ ) atom except.

- a.  $\text{Al}^{+3}$
- b.  $\text{Na}^{+}$
- c.  $\text{Li}^{+}$
- d.  $\text{Mg}^{+2}$

12 - The electronic structure of sodium ion ( $\text{Na}^{+}$ ) is similar to that of.....

- a.  $_{7}\text{N}$
- b.  $_{18}\text{Ar}$
- c.  $_{10}\text{Ne}$
- d.  $_{8}\text{O}$

13 - The electronic structure of magnesium ion ( $\text{Mg}^{+2}$ ) is similar to all of the following except.....

- a.  $\text{Na}^{+}$
- b.  $_{10}\text{Ne}$
- c.  $\text{Al}^{+3}$
- d.  $_{18}\text{Ar}$

14 - An element (Y), its atomic number is 13, so the electronic configuration of its ion is...

- a. 2,8,3
- b. 2,8
- c. 2,8,8
- d. 2,8,8,3

15 – An element (X), its atomic number is 12, so the number of electrons in its ion equals.

- a. 10                      b. 15                      c. 17                      d. 18

16 - The difference between sodium atom ( ${}_{11}\text{Na}$ ) and sodium ion ( $\text{Na}^+$ ) is the number of...

- a. protons  
b. electrons  
c. energy levels  
d. (b) and (c)

17 - The number of electrons located in the **ion** of trivalent metallic element whose electrons are arranged in three energy levels is.....

- a. 3                      b. 8                      c. 10                      d. 13

18 - Which of the following is a nonmetallic element?.....

- a.  $_{11}\text{Na}$       b.  $_{12}\text{Mg}$       c.  $_{13}\text{Al}$       d.  $_{17}\text{Cl}$

19 - During the chemical reactions, nonmetal atoms tend to.....

- b. lose electrons and change into negative ions
- c. gain electrons and change into negative ions
- d. lose electrons and change into positive ions
- e. gain electrons and change into positive ions

20 – The electronic structure of the negative ions is similar to that of the nearest.....

- a. preceding inert gas  
b. following inert gas  
c. previous inert gas  
d. similar inert gas

21 – Negative ion carries a number of negative charges equal to the number of.....

- a. gained electrons                      c. shared electrons  
b. lost electrons                          d. lost protons

22 – All the followings have the same electronic configuration of neon ( $_{18}\text{Ar}$ ) atom except

- a.  $P^{3-}$                       b.  $S^{2-}$                       c.  $Cl^-$                       d.  $Na^+$



23 – The electronic structure of sulphur ion ( $S^{2-}$ ) is similar to that of.....

- a.  ${}_7N$                       b.  ${}_{18}Ar$                       c.  ${}_{10}Ne$                       d.  ${}_8O$

24 – The electronic structure of phosphorus ion ( $P^{3-}$ ) is similar to all of the following except.....

- a.  ${}_{18}Ar$                       b.  $Cl^-$                       c.  $P^{3-}$                       d.  $Na^+$

25 – An element (Y), its atomic number is 17, so the electronic configuration of its ion is...

- a. 2,8,7                      b. 2,8,8                      c. 2,8,8,7                      d. 2,8,1

26 – An element (X), its atomic number is 15, so the number of electrons in its ion equals

- a. 10                      b. 17                      c. 18                      d. 20

27 – The difference between chlorine atom ( ${}_{17}Cl$ ) and chloride ion ( $Cl^-$ ) is the number of..

- a. electrons                      c. energy levels  
b. protons                      d. (a) and (c)

28 – The nucleus of  $X^{2-}$  ion is surrounded by 18 electrons revolve around it and the mass number of this ion equals 32, so the number of electrons in the X atom is.....and the number of its neutrons is.....

- a. 16, 23                      b. 18, 23                      c. 18, 21                      d. 16, 16
- .....
- .....
- .....

29 – All the following from the semi-metals (metalloids) except.....

- a. tellurium                      b. silicon                      c. boron                      d. bromine

30 – Each period in the periodic table starts with.....

- a. metal                      b. nonmetal                      c. metalloid                      d. inert gas

31 – Each period in the periodic table ends with.....

- a. metal                      b. nonmetal                      c. metalloid                      d. inert gas

32 - By increasing the atomic number within the period, the.....

- a. atomic size decreases
- b. metallic property decreases
- c. nonmetallic property increases
- d. all the previous answers

33 - By increasing the atomic number within group (1A), the.....

- a. atomic size decreases
- b. nonmetallic property increases
- c. metallic property increases
- d. all the previous answers

34 - The strongest metallic elements lies in group.....

- a. 1A
- b. 7A
- a. 2A
- b. zero

35 - The most metallic element in group (1A) is.....

- a. Na
- b. Cs
- c. K
- d. Li

36 - The least metallic element in group (1A) is.....

- a. Na
- b. K
- c. Cs
- d. Li

37 - By increasing the atomic number within group (7A), the.....

- a. atomic size decreases
- b. metallic property increases
- c. nonmetallic property decreases
- d. all the previous answers

38 - Which of the following metals react with dilute hydrochloric acid?.....

- a. C
- b. Cu
- c. S
- d. Zn

39 - All the following elements **don't** react with dilute HCl acid **except**.....

- a. Cu
- b. Zn
- c. Mg
- d. (b) and (c)

40 - When magnesium reacts with dilute hydrochloric acid, this produces.....

- a. magnesium oxide and hydrogen gas evolves
- b. magnesium chloride and oxygen gas evolves
- c. magnesium chloride and hydrogen gas evolves
- d. no correct answer



41 - Metal oxides (as sodium oxide) are.....oxides

- a. acidic                      b. basic                      c. amphoteric                      d. neutral

42 - Magnesium reacts with oxygen giving.....

- a.  $\text{Mg}(\text{OH})_2$                       b.  $\text{MgO}$                       c.  $\text{MgCl}_2$                       d.  $\text{MgSO}_4$

43 - Magnesium oxide dissolves in water giving.....

- a.  $\text{Mg}(\text{OH})_2$                       b.  $\text{MgO}$                       c.  $\text{MgCl}_2$                       d.  $\text{MgSO}_4$

44 - Magnesium hydroxide turns the colour of litmus solution into.....

- a. red                      b. blue                      c. orange                      d. violet

45 - All the following are related to  $\text{MgO}$  except.....

- a. it is a basic oxide  
b. it is a metal oxide  
c. its solution turns litmus into red  
d. its solution turns litmus into blue

46 - Sodium oxide ( $\text{Na}_2\text{O}$ ) and calcium oxide ( $\text{CaO}$ ) are from.....oxides

- a. amphoteric                      c. nonmetallic  
b. acidic                      d. basic

47 - When sodium or potassium reacts with water,.....gas evolves

- a.  $\text{N}_2$                       b.  $\text{O}_2$                       c.  $\text{H}_2$                       d.  $\text{CO}_2$

48 - .....react very slowly with cold water

- a.  $\text{Ca} - \text{Mg}$                       b.  $\text{K} - \text{Na}$                       c.  $\text{Zn} - \text{Fe}$                       d.  $\text{Cu} - \text{Ag}$

49 - .....react with hot water vapour at high temperatures

- a.  $\text{Ca} - \text{Mg}$                       b.  $\text{K} - \text{Na}$                       c.  $\text{Zn} - \text{Fe}$                       d.  $\text{Cu} - \text{Ag}$

50 - All the following metals react with water except.....

- a.  $\text{K}$                       b.  $\text{Mg}$                       c.  $\text{Fe}$                       d.  $\text{Ag}$

51 – Nonmetal oxides (as carbon dioxide) are.....oxides

- a. acidic
- b. basic
- c. amphoteric
- d. no correct answer

52 – Carbon reacts with oxygen giving.....

- a. CO
- b. CO<sub>3</sub>
- c. CO<sub>2</sub>
- d. Na<sub>2</sub>O

53 – Carbon dioxide dissolves in water giving.....

- a. H<sub>2</sub>CO<sub>3</sub>
- b. HCO<sub>2</sub>
- c. H<sub>3</sub>CO<sub>2</sub>
- d. H<sub>2</sub>CO

54 – Carbonic acid turns the colour of litmus solution into.....

- a. red
- b. blue
- c. orange
- d. violet

55 – All the following are related to CO<sub>2</sub> except.....

- a. it is an acidic oxide
- b. it is a nonmetal oxide
- c. its solution turns litmus into red
- d. its solution turns litmus into blue

56 – Sulphur oxide is from.....oxides

- a. acidic
- b. basic
- c. amphoteric
- d. neutral

57 – Which of the following is a basic oxide.....

- a. CO<sub>2</sub>
- b. Mg(OH)<sub>2</sub>
- c. Na<sub>2</sub>O
- d. (b) and (c)

58 – Which of the following is an acidic oxide.....

- a. CO<sub>2</sub>
- b. SO<sub>3</sub>
- c. Na<sub>2</sub>O
- d. (a) and (b)

59 – The oxide which dissolves in water and produces an alkali is.....

- a. CO<sub>2</sub>
- b. MgO
- c. CaO
- d. (b) and (c)

60 – The oxide which dissolves in water and produces an acid is.....

- a. CO<sub>2</sub>
- b. Mg(OH)<sub>2</sub>
- c. Na<sub>2</sub>O
- d. (b) and (c)



61 –  $\text{Al}_2\text{O}_3$  is known as.....oxide

- |           |               |
|-----------|---------------|
| a. acidic | c. amphoteric |
| b. basic  | d. neutral    |

62 – The 3<sup>rd</sup> period starts with elements their oxides as the following.....

- |                                  |                                  |
|----------------------------------|----------------------------------|
| a. acidic, amphoteric then basic | c. basic, acidic then amphoteric |
| b. acidic, basic then amphoteric | d. basic, amphoteric then acidic |

### 3 - Lesson Three :

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1 – Elements of group (18) are known as.....

- |                  |                      |
|------------------|----------------------|
| a. alkali metals | c. nobel gases       |
| b. halogens      | d. no correct answer |

2 – Hydrogen element belongs to group.....

- |       |       |       |       |
|-------|-------|-------|-------|
| a. 1A | b. 2A | c. 6A | d. 7A |
|-------|-------|-------|-------|

3 – Elements of group (1A) are known as.....

- |                  |                      |
|------------------|----------------------|
| a. alkali metals | c. nobel gases       |
| b. halogens      | d. no correct answer |

4 – Alkali metals are considered from.....block groups

- |      |      |      |      |
|------|------|------|------|
| a. s | b. p | c. d | d. f |
|------|------|------|------|

5 - .....is (are) from alkali metals

- |           |              |             |                |
|-----------|--------------|-------------|----------------|
| a. Sodium | b. Magnesium | c. Rubidium | d. (a) and (c) |
|-----------|--------------|-------------|----------------|

6 – Which of the following elements is an alkali metal which lies in period 3?...

- |                    |                       |                       |                      |
|--------------------|-----------------------|-----------------------|----------------------|
| a. ${}_3\text{Li}$ | b. ${}_{12}\text{Mg}$ | c. ${}_{11}\text{Na}$ | d. ${}_{19}\text{K}$ |
|--------------------|-----------------------|-----------------------|----------------------|

7 – Most of alkali metals have.....density

- |         |        |           |             |
|---------|--------|-----------|-------------|
| a. high | b. low | c. medium | d. moderate |
|---------|--------|-----------|-------------|

8 – All these alkali metals float on water surface except.....

- a. Li                                      b. Na                                      c. K                                      d. Cs

9 – At the ordinary temperature, all alkali metals are found in.....state

- a. solid                                      b. liquid                                      c. gaseous                                      d. (a) and (b)

10 – The outermost energy level of any alkali metal contains.....electron(s)

- a. 1                                      b. 3                                      c. 5                                      d. 7

11 – The valency of alkali metals is.....

- a. monovalent                                      b. divalent                                      c. trivalent                                      d. (a) and (c)

12 – All these elements are monovalent except.....

- a.  $_{11}\text{Na}$                                       b.  $_{19}\text{K}$                                       c.  $_{20}\text{Ca}$                                       d.  $_{3}\text{Li}$

13 – Elements which have atomic numbers.....are called alkali metals

- a. 2,8,16                                      b. 2,10,18                                      c. 3,11,19                                      d. 4,12,20

14 – .....form positive ions during the chemical reactions

- a. Nobel gases                                      c. Halogens  
b. Nonmetals                                      d. Alkali metals

15 – .....are kept under the surface of kerosene in the lab

- a. Alkali metals                                      c. Inert gases  
b. Halogens                                      d. Alkaline earth metals

16 – Sodium and potassium are kept under the surface of.....

- a. water                                      c. alcohol  
b. kerosene                                      d. benzene

17 – The metallic property of alkali metals increases by increasing their.....

- a. electronegativity                                      c. valency  
b. atomic size                                      d. all are correct

18 - .....element has higher chemical reactivity

- a. Sodium                      b. Potassium                      c. Lithium                      d. Cesium

19 - The strongest (most active) metal lies in group.....

- a. 7A                      b. 1B                      c. 1A                      d. 2A

20 - The most active metal in group (1A) is.....

- a. Na                      b. Cs                      c. K                      d. Li

21 - Elements of group (1A) are dissolved in water forming.....solutions

- a. acidic                      b. basic                      c. neutral                      d. red

22 - The gas evolved on reacting alkali metal with water is.....

- a. oxygen                      b. nitrogen                      c. hydrogen                      d. helium

23 - .....reacts with water more strongly than sodium

- a. Potassium                      c. Cesium  
b. Rubidium                      d. All are correct

24 - All the following are from the properties of alkali metals except they.....

- a. have low densities                      c. conduct heat and electricity  
b. are active elements                      d. are divalent elements

25 - Alkali metals have the following properties except.....

- a. they have low density                      c. they conduct electricity  
b. they conduct heat                      d. they don't react with water

26 - Rubidium (Rb) element lies in group (1A) and period....in the periodic table

- a. 2                      b. 3                      c. 4                      d. 5

27 - Elements of group (7A) are known as.....

- a. inert gases                      c. alkali metals  
b. halogens                      d. alkaline earth metals



28 - Halogens are considered from.....block groups

- a. s                                      b. p                                      c. d                                      d. f

29 - .....is considered from halogens

- a. Na                                      b. Cl                                      c. He                                      d. Ca

30 - .....is (are) from the halogens that exist(s) in a gaseous state

- a. Bromine                              b. Chlorine                              c. Fluorine                              d. (b) and (c)

31 - The halogen which exists in a liquid state is.....

- a. bromine                              b. iodine                                      c. fluorine                                      d. chlorine

32 - The halogen which is found in a solid state is.....

- a. bromine                              b. iodine                                      c. fluorine                                      d. chlorine

33 - All of these halogens exist in a gaseous state except.....

- a. iodine                                      b. fluorine                                      c. chlorine                                      d. (b) and (c)

34 - Halogens are.....conductors of heat and electricity

- a. good                                      b. bad                                      c. moderate                                      d. all of them

35 - The outermost energy level of any halogen contains.....electron(s)

- a. 1                                      b. 3                                      c. 6                                      d. 7

36 - The valency of halogens is.....

- a. tetravalent                              b. divalent                                      c. monovalent                                      d. (a) or (b)

37 - .....form negative ions during the chemical reactions

- a. inert gases                                      c. alkali metals  
b. halogens                                      d. alkaline earth metals

38 - The molecule of halogens is composed of.....atom(s)

- a. 1                                      b. 2                                      c. 3                                      d. 4

39 - Halogens don't found in an elementary state except.....which is prepared artificially

- a. oxygen                      b. chlorine                      c. astatine                      d. iodine

40 - The halogen that can be prepared artificially is.....

- a. Cl                      b. I                      c. At                      d. Br

41 - The most active element in group (7A) is.....

- a. F                      b. Cl                      c. I                      d. At

42 - .....in its salt solution

- a. Chlorine replaces bromine                      c. Iodine replaces chlorine  
b. Bromine replaces fluorine                      d. Iodine replaces fluorine

43 - All of these elements can replace bromine in its salt solutions except.....

- a. fluorine                      b. chlorine                      c. iodine                      d. (a) and (b)

44 - Bromine is obtained when chlorine reacts with.....solutions

- a. sodium bromide                      c. sodium iodide  
b. potassium bromide                      d. (a) or (b)

45 - Liquid sodium is used in.....

- a. nuclear reactors                      c. fridges  
b. computers                      d. sterilization

46 - The element which emits gamma rays is.....

- a.  $^{60}\text{Co}$                       b.  $^{23}\text{Na}$                       c.  $^{14}\text{N}$                       d.  $^{35}\text{Cl}$

47 - .....rays are used sterilizing food

- a. Alpha                      b. Beta                      c. Gamma                      d. Laser

48 - The semi-metal (metalloid) that is used in the manufacture of transistor is....

- a. S                      c. Na  
b. Si                      d. K

49 – Cornea is preserved under the surface of.....

- a. nitrogen gas
- b. liquid paraffin
- c. liquefied nitrogen
- d. helium gas

50 – The boiling point of liquefied nitrogen is.....

- a.  $0^{\circ}\text{C}$
- b.  $194^{\circ}\text{C}$
- c.  $-96^{\circ}\text{C}$
- d.  $-196^{\circ}\text{C}$

51 – The valency of noble gases is.....

- a. monovalent
- b. divalent
- c. trivalent
- d. zero

#### 4 – Lesson Four :

---

1 – Water has several uses in.....

- a. agricultural field
- b. industrial field
- c. personal field
- d. all the them

2 – Water molecule is composed of.....

- a. one oxygen atom and one hydrogen atom
- b. two oxygen atom and one hydrogen atom
- c. one oxygen atom and two hydrogen atoms
- d. two oxygen atoms and two hydrogen atoms

3 – In water molecule, oxygen atom is linked with two hydrogen atoms by two...

- a. ionic
- b. single covalent
- c. double covalent
- d. hydrogen

4 – In water molecule, the angle between the two hydrogen atoms is.....

- a.  $64^{\circ}$
- b.  $104.5^{\circ}$
- c.  $104^{\circ}$
- d.  $140.5^{\circ}$

5 – The covalent bond in a molecule of water is (are).....bonds(s)

- a. one double
- b. one triple
- c. two single
- d. two double



6 – The electronegativity of oxygen is.....than that of hydrogen

- a. equal to
- b. higher than
- c. less than
- d. (a) and (b)

7 – There are.....bonds among the water molecules

- a. ionic
- b. covalent
- c. hydrogen
- d. (b) and (c)

8 -.....is a weak electrostatic attraction force that arises between the molecules of polar compounds as water and ammonia

- a. Hydrogen bond
- b. Covalent bond
- c. Ionic bond
- d. (a) and (b)

9 – Hydrogen bond is.....than covalent bond

- a. weaker
- b. stronger
- c. lighter
- d. (a) and (c)

10 - .....is responsible for the unique properties of water

- a. Hydrogen bond
- b. Covalent bond
- c. Ionic bond
- d. (a) and (b)

11 – Water exists in.....in normal temperatures

- a. solid state only
- b. gaseous state only
- c. liquid state only
- d. all the previous answers

12 – The pure water boils at.....°C

- a. 100
- b. 37
- c. 42
- d. 0

13 - The pure water freezes at.....°C

- a. 4
- b. 100
- c. 0
- d. 37

14 – The density of pure water.....on freezing

- a. increases
- b. decreases
- c. is doubled
- d. remains constant

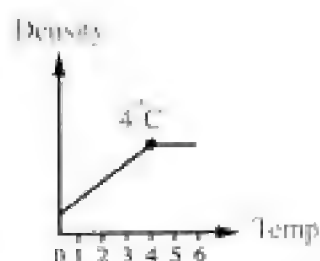
15 – The volume of pure water.....on freezing

- a. increases
- b. decreases
- c. is doubled
- d. remains constant

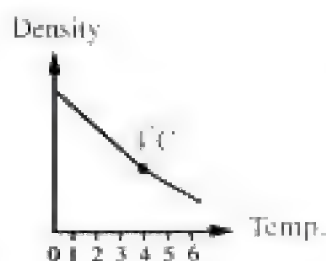
16 – The mass of pure water.....on freezing

- a. increases
- b. decreases
- c. is doubled
- d. remains constant

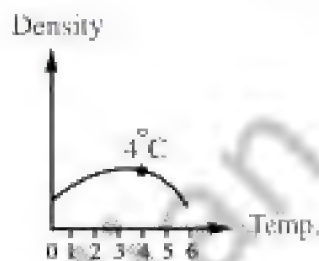
17 – The figure.....represents the change in water density by changing the temperature



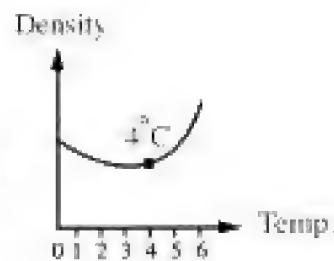
a.



b.



c.



d.

18 – The highest value of density of pure water is at.....°C

- a. 0
- b. 4
- c. 100
- d. 42

19 – The lowest value of density of pure water is at.....°C

- a. 0
- b. 4
- c. 100
- d. 37

20 – The density of pure water in its solid state is.....

- a. less than its density in liquid state
- b. equal to its density in vapour state
- c. greater than its density in liquid state
- d. less than its density in vapour state

21 – The *ratio* between the density of water at 4°C to its density at zero °C is.....one

- a. more than
- b. less than
- c. equal to

22 – The density of pure water in the solid state is.....1 gm/cm<sup>3</sup>

- a. more than
- b. less than
- c. equal to

23 - The volume of a quantity of water at  $10^{\circ}\text{C}$  is...the volume of the same quantity at  $1^{\circ}\text{C}$

- a. more than                      b. equal to                      c. less than

24 - A bottle is filled completely with water and put closed in the freezer.

After sometime, it breaks because when water freezes.....

- a. its density becomes less than its volume  
b. its volume increases without a change in its density  
c. its volume increases and its density decreases  
d. its density increases and its volume decreases

25 - When we put 1 litre of water at  $4^{\circ}\text{C}$  in the freezer to change it into ice, its mass.....

- a. increases                                      c. is doubled  
b. decreases                                      d. remains constant

26 - The snow crystals has.....shape

- a. octagonal                      b. pentagonal                      c. hexagonal                      d. quadrilateral

27 - Ice crystals are characterized by all the following except they have.....

- a. low density                                      c. large volume  
b. high density                                      d. hexagonal shape

28 - Water has a/an.....effect on litmus paper

- a. basic                      b. neutral                      c. acidic                      d. alkaline

29 - Hofmann's voltameter is used in water.....

- a. analysis                      b. electrolysis                      c. ionization                      d. acidification

30 - During the electrolysis of water, we add some drops of.....into water

- a. dilute HCl                                      c. dilute  $\text{H}_2\text{SO}_4$   
b. conc. HCl                                      d. conc.  $\text{H}_2\text{SO}_4$

31 - During water electrolysis, oxygen gas evolves at the.....

- a. anode                                      b. cathode                                      c. (a) or (b)



32 - During water electrolysis, hydrogen gas evolves at the.....

- a. anode                                      b. cathode                                      c. (a) or (b)

33 - The volume of hydrogen gas evolves from water electrolysis is.....

- a. half of oxygen volume  
b. double the oxygen volume  
c. equal to the oxygen volume  
d. four times oxygen volume

34 - Electrolysis of acidified water gives hydrogen gas and oxygen gas at a ratio of.....

- a. 1 : 2                                      c. 1 : 3  
b. 2 : 1                                      d. 2 : 3

35 - In the electrolysis of acidified water by using Hofmann's voltameter. If the volume of hydrogen gas evolves is  $40 \text{ cm}^3$ , so the volume of oxygen gas that evolves is..... $\text{cm}^3$

- a. 10                                      b. 20                                      c. 40                                      d. 80

36 - If the summation of the volume of two evolved gases at the two poles of Hofmann's voltameter is  $60 \text{ cm}^3$ , so the volume of oxygen and hydrogen gases *respectively*.....

- a.  $20 \text{ cm}^3 - 40 \text{ cm}^3$                                       c.  $30 \text{ cm}^3 - 30 \text{ cm}^3$   
b.  $40 \text{ cm}^3 - 20 \text{ cm}^3$                                       d.  $10 \text{ cm}^3 - 50 \text{ cm}^3$

37 - A liquid boils at  $100^\circ\text{C}$ . What is the other property that confirms that it is pure water?.....

- a. It dissolves table sugar  
b. Its density decreases on freezing  
c. It has a neutral effect on litmus paper  
d. It evaporates on heating

38 - All the following among the properties of water except.....

- a. it has a neutral effect on litmus paper  
b. it is a polar compound  
c. its volume increases by freezing  
d. it decomposes by heat into elements

39 - All the following are natural water pollutants except.....

- a. volcanic eruption
- b. death of living organisms
- c. lightening accompanied thunder storms
- d. discharge of factories residues

40 - Mixing animals and human wastes with water causes.....pollution

- a. chemical
- b. biological
- c. thermal
- d. radiant

41 - All the following diseases are caused by biological pollution except.....

- a. cancer
- b. bilharzia
- c. hepatitis
- d. typhoid

42 - Increasing the concentration of.....in drinking water causes death of brain cells

- a. lead
- b. mercury
- c. arsenic

43 - Increasing the concentration of.....in drinking water causes blindness

- a. lead
- b. mercury
- c. arsenic

44 - Increasing the concentration of.....in drinking water causes liver cancer

- a. lead
- b. mercury
- c. arsenic

45 - .....pollution causes the death of marine creatures

- a. chemical
- b. thermal
- c. radiant
- d. biological

46 - Which of following behaviours causes radiant pollution?.....

- a. Leakage of radioactive materials from nuclear reactors
- b. Using water in cooling the nuclear reactors
- c. (a) and (b) are correct

47 - Putting water in empty glass bottles causing the plastic reacts with.....gas

- a. hydrogen
- b. chlorine
- c. fluorine
- d. oxygen

48 - The water of a pool contains minerals, oxygen, organic fertilizers, animal wastes and green algae. What is the number of pollutants found in it?.....

- a. 1
- b. 2
- c. 3
- d. 4

## 5 - Lesson Five :

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- 1 - The height of the atmospheric envelope is about.....above sea level
- a. 100 km                      b. 1000 km                      c. 1013.25 km                      d. 1000 mb
- 2 - Atmospheric pressure is the..of an air column of an atmospheric height on a unit area
- a. mass                      b. volume                      c. weight                      d. density
- 3 - The measuring unit(s) of atmospheric pressure is (are).....
- a. bar                      c. millimeter  
b. newton                      d. (a) and (c)
- 4 - Normal atmospheric pressure at sea level equals.....at sea level
- a. 1000 mb                      b. 1000 bar                      c. 1013.25 mb                      d. 1013.25 mb
- 5 - .....of the mass air is located in a region extends between 3 km and 16 km height
- a. 10 %                      b. 40 %                      c. 50 %                      d. 90 %
- 6 - Molecules of air are very close to each other at.....
- a. sea surface                      c. 1 km height  
b. 3 km height                      d. 16 km height
- 7 - The density of air....., by increasing the elevation above the sea level
- a. increases                      c. is doubled  
b. decreases                      d. remains fixed
- 8 - The density of the air at the top of a mountain is.....its density at its foot
- a. more than                      c. equals  
b. less than                      d. not related
- 9 - By decreasing the elevation above sea level, the atmospheric pressure....
- a. increases                      c. is doubled  
b. decreases                      d. doesn't change



10 – By increasing the elevation above sea level, the atmospheric pressure.....

- a. increases
- b. decreases
- c. is doubled
- d. doesn't change

11 – As the density of the air increases, the atmospheric pressure.....

- a. increases
- b. decreases
- c. is doubled
- d. doesn't change

12 – As the density of the air decreases, the atmospheric pressure.....

- a. increases
- b. decreases
- c. is doubled
- d. doesn't change

13 – The atmospheric pressure at the top of a mountain is.....the atmospheric pressure at the sea level

- a. more than
- b. less than
- c. equals
- d. half

14 – The value of atmospheric pressure may be equal.....mb at the top of El-Mokattam mountain

- a. 1031.25
- b. 1016.25
- c. 1013.25
- d. 1010

15 – The device which is used in measuring the atmospheric pressure is.....

- a. barometer
- b. ammeter
- c. voltmeter
- d. (b) and (c)

16 – .....is an instrument that is used to measure the possible day weather

- a. barometer
- b. aneroid
- c. altimeter
- d. all the previous answers

17 – .....is an instrument used by pilots to measure their elevation from sea level based on atmospheric pressure

- a. barometer
- b. aneroid
- c. altimeter
- d. all the previous answers

18 – The device which is used in measuring the attitude above sea level is....

- a. barometer
- b. aneroid
- c. altimeter
- d. all the previous answers

19 – In atmospheric pressure maps, the regions of equal atmospheric pressure are joined together by curved lines called.....

- a. isotopes
- b. isobar
- c. isometric
- d. (a) and (b)

20 – The atmospheric envelope consists of.....layers

- a. 3
- b. 5
- c. 4
- d. 6

21 – Tropopause is found between.....layers

- a. stratosphere and mesosphere
- b. mesosphere and thermosphere
- c. stratosphere and troposphere
- d. (a) or (c)

22 – Stratopause is found between.....layers

- a. stratosphere and mesosphere
- b. mesosphere and thermosphere
- c. (a) or (b)
- d. stratosphere and troposphere

23 – Mesopause is found between.....layers

- a. stratosphere and mesosphere
- b. mesosphere and thermosphere
- c. (a) or (b)
- d. stratosphere and troposphere

24 - .....layer extends from the sea level to the tropopause

- a. stratosphere
- b. mesosphere
- c. troposphere
- d. thermosphere

25 - .....layer extends from tropopause and stratopause

- a. stratosphere
- b. mesosphere
- c. troposphere
- d. thermosphere

26 - .....layer extends from stratopause to mesopause

- a. stratosphere
- b. mesosphere
- c. troposphere
- d. thermosphere

27 - .....layer extends from mesopause to space

- a. stratosphere
- b. mesosphere
- c. troposphere
- d. thermosphere

28 - The disturbed layer is.....

- a. stratosphere
- b. mesosphere
- c. troposphere
- d. ionosphere

29 - The thickness of the troposphere layer is about.....km

- a. 18
- b. 13
- c. 1000
- d. 14

30 - The atmospheric pressure at tropopause equals.....bar

- a. 100
- b. 0.1
- c. 1013.24
- d. (a) or (b)

31 - All the atmospheric phenomena such as rains occur in the.....layer

- a. second
- b. third
- c. first
- d. fourth

32 - The troposphere contains about 75% of the atmospheric envelope's.....

- a. mass
- b. weight
- c. volume
- d. length

33 - The total mass of the air which located in the upper three layers of atmospheric envelope is about.....

- a. 99 %
- b. 75 %
- c. 50 %
- d. 25 %

34 - In the lower part of.....layer, more than half of the mass of air is located

- a. troposphere
- b. stratosphere
- c. mesosphere
- d. Thermosphere

35 - The troposphere contains about 99% of the atmospheric envelope's.....

- a. oxygen
- b. nitrogen
- c. water vapour
- d. carbon dioxide

36 - The upper three layers of the atmospheric envelope contain.....of water vapour

- a. 1 %
- b. 25 %
- c. 99 %
- d. 75 %



37 - Water vapour in troposphere.....the temperature on the Earth

- a. organizes                      b. decreases                      c. increases                      d. has no effect

38 - The air moves.....in troposphere layer

- a. horizontally                      b. vertically                      c. randomly                      d. (b) or (c)

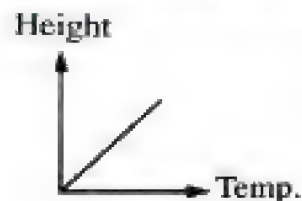
39 - The temperature decreases at the rate of..... $^{\circ}\text{C}$  at 2 km above the Earth's surface

- a. 6.5                      b. 13                      c. 18.5                      d. 9.75

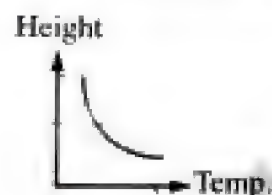
40 - The temperature becomes..... $^{\circ}\text{C}$  at tropopause

- a. 6.5                      b. - 6.5                      c. 65                      d. - 60

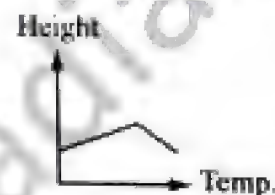
41 - Mention the **change of temperature** by transferring 7500 m upwards.....



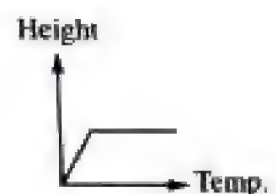
(a)



(b)



(c)



(d)

42 - .....is the second layer of atmospheric envelope

- a. Troposphere                      b. Stratosphere                      c. Mesosphere                      d. Thermosphere

43 - .....is the region between stratosphere and mesosphere

- a. Tropopause                      b. Stratopause                      c. Mesopause                      d. Thermopause

44 - The thickness of the stratosphere layer is about.....km

- a. 37                      b. 13                      c. 1000                      d. 50

45 - Ozone layer is formed in.....layer

- a. troposphere                      b. stratosphere                      c. mesosphere                      d. thermosphere

46 - The air moves.....in the stratosphere layer

- a. horizontally                      c. (a) and (b)  
b. vertically                      d. no correct answer

47 - Pilots prefer to fly their planes in.....

- a. troposphere      b. stratosphere      c. mesosphere      d. thermosphere

48 - The coldest atmospheric layer in the atmospheric envelope is.....

- a. troposphere      b. stratosphere      c. mesosphere      d. thermosphere

49 - The thickness of the mesosphere layer is about.....km

- a. 37      b. 13      c. 1000      d. 35

50 - Luminous meteors are formed in.....layer

- a. troposphere      c. mesosphere  
b. stratosphere      d. thermosphere

51 - Meteors burn in.....

- a. mesosphere      c. exosphere  
b. ionosphere      d. stratosphere

52 - The.....layer is much vacuumed layer

- a. troposphere      c. mesosphere  
b. stratosphere      d. thermosphere

53 - The temperature at the top of mesosphere layer reaches.....

- a.  $100^{\circ}\text{C}$       b.  $-60^{\circ}\text{C}$       c.  $-90^{\circ}\text{C}$       d.  $1200^{\circ}\text{C}$

54 - The hottest atmospheric layer in the atmospheric envelope is.....layer

- a. troposphere      c. mesosphere  
b. stratosphere      d. thermosphere

55 - The thickness of the thermosphere layer is about.....km

- a. 37      b. 13      c. 570      d. 590

56 - The temperature at the top of thermosphere layer reaches.....

- a.  $100^{\circ}\text{C}$       b.  $-60^{\circ}\text{C}$       c.  $-90^{\circ}\text{C}$       d.  $1200^{\circ}\text{C}$

**57** – Ionosphere layer is located in the upper part of.....layer

- a. troposphere                      b. stratosphere                      c. mesosphere                      d. thermosphere

**58** – Ionosphere is surrounded by.....belts

- a. magnetic                      b. electric                      c. thermal                      d. light

**59** – The charged cosmic radiations are dispersed in the.....layer

- a. troposphere                      b. stratosphere                      c. mesosphere                      d. ionosphere

**60** – Charged cosmic radiations reflect in.....layer

- a. ionosphere                      b. stratosphere                      c. mesosphere                      d. troposphere

**61** – The atmospheric envelopes is interfered with the outer space in.....layer

- a. exosphere                      b. thermosphere                      c. mesosphere                      d. stratosphere

**62** – Satellites orbit in.....of the Earth

- a. stratosphere                      b. thermosphere                      c. mesosphere                      d. exosphere

## **6 – Lesson Six :**

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**1** – Ozone molecule consists of.....

- a. one oxygen atom                      c. three oxygen atom  
b. two oxygen atoms                      d. four oxygen atoms

**2** – Oxygen molecule splits into two free atoms in stratosphere layer by the effect of.....

- a. heat                      c. infrared radiations  
b. ultraviolet radiations                      d. cooling down

**3** – Ozone layer is found in.....layer

- a. ionosphere                      b. mesosphere                      c. stratosphere                      d. exosphere

**4** – The scientist.....proposed that the thickness of ozone layer is about 3mm under the standard temperature and pressure (STP)

- a. Newton                      b. Edison                      c. Dobson                      d. Watson



**5** – Ozone degree is measured in a unit called.....

- a. Dobson                      b. km                      c. Nanometer                      d. mm<sup>2</sup>

**6** – Degree of ozone at STP conditions is.....Dobson (DU)

- a. 100                      b. 200                      c. 300                      d. 400

**7** – One Dobson unit is defined as.....

- a. 3 mm                      b. 0.01 mm                      c. 0.001 m                      d. 1 mm

**8** – Nanometre = .....metres

- a.  $1 \times 10^{-3}$                       c.  $1 \times 10^{-9}$   
b.  $1 \times 10^{-6}$                       d.  $1 \times 10^{-12}$

**9** – Ozone layer absorbs.....

- a. infrared rays                      c. X-rays  
b. ultraviolet rays                      d. light rays

**10** – Ozone layer allows 100% of.....ultraviolet rays to penetrate

- a. near                      c. far  
b. medium                      d. (a) and (b)

**11** – Ozone layer doesn't allow the passage of.....ultraviolet rays

- a. near                      b. medium                      c. far                      d. (b) and (c)

**12** – The ozone hole appears over the.....

- a. North pole                      b. South pole                      c. Middle east                      d. Equator

**13** – The ozone hole increases in.....every year

- a. October                      b. September                      c. November                      d. December

**14** – All the following cause ozone hole (erosion) except.....

- a. aerosols                      c. iron oxides  
b. conditioning sets                      d. concorde aeroplanes

15 - .....compounds are known commercially as Freons

- |                    |                       |
|--------------------|-----------------------|
| a. Halons          | c. Hydrocarbons       |
| b. Nitrogen oxides | d. Chlorofluorocarbon |

16 - Chlorofluorocarbon compounds are used as.....

- |                          |                             |
|--------------------------|-----------------------------|
| a. solvent substances    | c. flatting substances      |
| b. propellant substances | d. all the previous answers |

17 - .....is/are used as a coolant in cooling devices

- |                       |                   |
|-----------------------|-------------------|
| a. Halons             | c. Nitrogen oxide |
| b. Methyl bromide gas | d. Freon          |

18 - .....is/ are used as an insecticide to preserve agricultural crops

- |                       |                   |
|-----------------------|-------------------|
| a. Halons             | c. Nitrogen oxide |
| b. Methyl bromide gas | d. Freon          |

19 - .....is/ are used in extinguishing fires

- |                       |                   |
|-----------------------|-------------------|
| a. Halons             | c. Nitrogen oxide |
| b. Methyl bromide gas | d. Freon          |

20 - .....are resulted from burning of fuel in concorde aeroplanes

- |                       |                    |
|-----------------------|--------------------|
| a. Halons             | c. Nitrogen oxides |
| b. Methyl bromide gas | d. Freon           |

21 - All the following are from greenhouse gases except.....

- |                  |                         |
|------------------|-------------------------|
| a. $\text{CO}_2$ | c. $\text{CH}_4$        |
| b. $\text{O}_2$  | d. $\text{N}_2\text{O}$ |

22 - .....is/are among the reasons for increasing  $\text{CO}_2$  in atmosphere

- a. Fossil fuel burning
- b. Cutting trees
- c. Forests fires
- d. All the previous answers

23 – Global warming occurs due to.....

- a. increasing carbon dioxide in atmosphere
- b. decrease in carbon dioxide in atmosphere
- c. cutting trees and forests fires
- d. (a) and (c)

24 – Greenhouse effect explains.....

- a. water evaporation
- b. ozone hole
- c. global warming phenomenon
- d. (b) and (c)

25 - .....radiation is characterized by great heat effect

- a. Infrared
- b. Ultraviolet
- c. Visible light
- d. X-rays

26 – From the negative effects of global warming is/are.....

- a. melting the ice at the north and south poles
- b. severe climate changes
- c. the lack of ozone gas in the atmosphere
- d. (a) and (b)

27 – .....is (are) from the extinct animals due the melting of ice in the North and South Poles (as a result of global warming)

- a. Blue whales
- b. Polar bear
- c. Seal
- d. (b) and (c)

## 7 – Lesson Seven :

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1 – Fossils are often found in.....rocks

- a. metamorphic
- b. sedimentary
- c. igneous
- d. no correct answer

2 – Which of the following terms is more precise in describing the remains and traces of old living organisms that were preserved in the sedimentary rocks?.....

- a. Petrification
- b. The red list
- c. Extinction
- d. Fossils



**3** – Worm's tunnel fossil is formed because of.....

- a. the presence of hard skeleton
- b. the activity of worms during their life
- c. the death of the worm and rapidly buried in sedimentary rocks
- d. the death of the worm and rapidly buried in ice layers

**4** – Complete body fossils of *mammoth* are found preserved in.....

- a. snow
- b. amber
- c. ammonites
- d. (a) and (b)

**5** – Complete body fossils of *insects* are found preserved in.....

- a. snow
- b. amber
- c. ammonites
- d. (a) and (b)

**6** – On solidification of the resinous matter secreted by pine tress in the old geological ages, it forms.....

- a. amber fossil
- b. fossil of a complete body
- c. trilobite fossil
- d. Nummulites fossil

**7** – Ammonites fossil represents a mold of a/ an.....

- a. snail
- b. elephant
- c. insect
- d. scorpion

**8** – If you are a collector of shells of snails or clams on the beach of the sea.

Which of the following can you make a model for a fossil known as *a mold*?.....

- a. A shell of ammonites snail only
- b. A shell of clam only
- c. A shell of ammonites and clam together
- d. The shells are not suitable for making fossils

**9** – When the mud fills up the shell cavities and solidify, then the shell decomposes,..... is produced

- a. a solid mold fossil
- b. a cast
- c. a petrified wood
- d. no correct answer

**10** – Is the cake is considered as a solid mold? Why?.....

- a. Yes, because it carries the same external details of the mold
- b. Yes, because it carries the same internal details of the mold
- c. No, because it carries the same internal and external details of the mold
- d. No, because it doesn't carry any details of the mold

**11** – What is the kind of fossils which is formed when a plant leaf falls on a soft sedimentary rock at the beginning of formation then hardening?.....

- a. A trace
- b. A mold
- c. A cast
- d. A petrified fossil

**12** – Are the dinosaur's eggs considered examples of petrified fossils?.....

- a. Yes, because minerals replace whole organic matter part by part
- b. Yes, because they carry the internal details of the eggs
- c. No, because they aren't considered fossils
- d. No, because they show the remains of dinosaurs after its death

**13** – What happened when silica replaced the wood of trees' stems and trunks which are older than 35 millions years?.....

- a. A complete body fossil had been formed
- b. A petrified fossil has been formed
- c. A trilobite fossils has been formed
- d. A dinosaur's tooth fossil has been formed

**14** – To obtain a fossil of any organism, what do you expect available for it?.....

- a. A hard skeleton
- b. Fast burying after death
- c. A medium preserves it from decomposition
- d. (a), (b) and (c)

**15** – Fossils are important for all of the following **except**.....

- a. determination of sedimentary rocks age
- b. studying kinds of metals
- c. petroleum exploration
- d. figuring out the paleoenvironment

- 16 - .....are fossils of organisms that had lived for a short period of time in the past and had a wide geographic distribution then become extinct
- a. Ferns                      b. Coral                      c. Index                      d. Petrified
- 17 - Not all fossils are considered as index fossils as they are characterized by.....
- a. long range of time and limited geographical range  
b. short range of time and limited geographical range  
c. long range of time and wide geographical range  
d. short range of time and wide geographical range
- 18 - The fossils that exist in the sedimentary rocks of the Mokattam Mountain are.....
- a. ferns                      b. coral                      c. Nummulites                      d. fish
- 19 - .....fossils indicate that the environment where they lived were hot and rainy tropical
- a. Ferns                      b. Fish                      c. Nummulites                      d. Coral
- 20 - .....fossils indicate that the environment where they lived were clear warm shallow seas
- a. Ferns                      b. Fish                      c. Nummulites                      d. Coral
- 21 - Life started first in.....
- a. rivers                      c. Earth  
b. seas                      d. Mountain
- 22 - The fossil record points to the life evolution in plants from simple to complicated higher forms, and the evidence for that is.....
- a. Angiosperms preceded gymnosperms  
b. algae preceded mosses and ferns  
c. ferns preceded mosses  
d. mosses preceded ferns
- 23 - .....is one of invertebrates that appeared in seas
- a. Mammoth                      c. Archaeopteryx  
b. Fish                      d. Trilobite



24 – Which of the following is considered as the evolution of vertebrates?.....

- a. Fish → amphibians → mammals → reptiles
- b. Ferns → amphibians → reptiles → birds
- c. Fish → amphibians → birds → mammals
- d. Fish → amphibians → reptiles → birds

25 – Archaeopteryx is the link between.....

- a. amphibian and reptiles
- b. reptiles and birds
- c. mammal and fish
- d. reptile and coral

26 – An example of microfossils is.....

- a. mammoth
- b. ferns
- c. radiolaria
- d. coral

27 – Which of the following fossils play an important role in petroleum exploration?.....

- a. Foraminifera and radiolaria
- b. Foraminifera and ammonites
- c. Foraminifera and nummulites
- d. Ammonites and trilobites

## 8 – Lesson Eight :

1 – Which of the following statement is **more precise** in describing the concept of the **extinction**?.....

- a. The date of death of the last individual of the same species
- b. The continuous decrease in the numbers of individuals of the same species without compensation
- c. Everything involves living organisms and non-living things in a certain environment
- d. The path of energy takes when it transported from a living organism to another living organism in the environment ecosystem

2 - .....indicate(s) **extinction**

- a. Fossils
- b. Protectorates
- c. Evolution
- d. Ecological equilibrium

3 - .....is/ are from the **hypothetical theories** that explains the causes of **macro (mass) extinction**

- a. Meteorite impacts with the Earth
- b. The violent Earth movements
- c. The onset of a long glacial age
- d. All the previous answers

4 - .....is/are of the most important causes of extinction in **recent ages**

- a. Volcanic eruption
- b. Falling of ice bergs
- c. Falling of meteorites
- d. Overhunting and environmental pollution

5 - All the following are **natural disasters** that **threaten** the **living organisms** except..

- a. floods
- b. volcanoes
- c. drought waves
- d. global warming

6 - .....were famous **extinct animals** in the **old times**

- a. Dodo bird and mammoth
- b. Dinosaurs and quagga
- c. Dinosaurs and mammoth
- d. Grey bear and passenger pigeon

7 - From the most common **recently extinct** species is/are.....

- a. dodo bird
- b. quagga
- c. bald eagle
- d. (a) and (b)

8 - .....is considered the mid-way between **horse** and **zebra**

- a. dodo bird
- b. quagga
- c. Tasmanian cat
- d. golden frog

9 - .....is **an extinct bird** that is characterized by the **reduced size** of its wings

- a. dodo bird
- b. quagga
- c. bald eagle
- d. golden frog

10 - All of the following are **endangered species** except.....

- a. panda bear
- b. bald eagle
- c. quagga
- d. rhinoceros

11 - .....is the path of energy that transfers from a living organism to another

- a. Food type
- b. Food pyramid
- c. Food chain
- d. No correct answer

12 - Yellowstone protectorate which was established for grey bear is in.....

- a. China
- b. USA
- c. Wadi El-Hetan
- d. Ras Mohamed

13 - .....protectorate is the **first natural protectorate** in Egypt

- a. Saint Catharine
- b. Ras Mohamed
- c. Wadi El-Hetan
- d. Petrified forest

14 - Ras Mohamed Protectorate includes.....

- a. some rare fish
- b. whale's fossils
- c. rare coral reefs
- d. (a) and (c) are correct

15 - The **age** of whale's fossils in Wadi El-Raiyan is.....million years

- a. 30
- b. 40
- c. 68
- d. 70

*THANK YOU*



Q1: Choose the correct answer:

1. Metal oxide are.....oxide.

- a. acidic      b. basic      c. amphoteric

2. The coldest atmospheric layer is.....

- a. Troposphere      b. thermosphere      c. mesosphere

3. The.....is used in preservation agricultural crops.

- a. Methyl bromide gas      b. halons      c. nitrogen oxide

4. The elements of group (7A) is called .....

- a. Alkali metals      b. halogens      c. alkaline earth metals

5. There is .....bonds between water molecules.

- a. Ionic      b. hydrogen      c. covalent

6. The scientist who discovered the main energy levels is.....

- a. Mendeleev      b. bohr      c. Rutherford

7. Complete body fossils of insects are found preserved in.....

- a. Amber      b. snow      c. ocean

8. All the following are greenhouse gases except.....

- a.  $\text{CO}_2$       b.  $\text{O}_2$       c.  $\text{CH}_4$

9. The density of ice is.....the density of water.

- a. Less than      b. more than      c. equal to

10.the normal atmospheric pressure at sea level equal .....mill bar.

- a. 1013.25      b. 76      c. 1.013      d. 100



11. The atomic number of an element that exists in group (7A) and period (2) is.....

- a. 12                      b. 7                      c. 9                      d. 17

12. Ozone layer is found in.....layer.

- a. troposphere                      b. stratosphere                      c. mesosphere

13. Each period in the table starts with .....

- a. metalloids                      b. metal                      c. nonmetal                      d. inert gas

14. ....indicates extinction.

- a. fossils                      b. protectorate                      c. ecosystem                      d. van allen belt

15. elements of group (1A) is known as.....

- a. halogens                      b. alkali metals                      c. inert gases                      d. active gases

16. ....Is the most metallic element in group (1A).

- a. sodium                      b. bromine                      c. lithium                      d. cesium

17. ....causes increase in the earth temperature.

- a. uv rays                      b. infrared rays                      c. cosmic rays                      d. ionosphere

18. pollution of water with wastes of man and animals cause.....

- a. death of brain cell                      b. blindness                      c. hepatitis                      d. liver cancer

19. All of the following are extinct species except .....

- a. dodo bird                      b. ibis bird                      c. dinosaurs                      d. mammoth



20. non- metal oxide dissolve in water forming.....solution.

- a. acidic    b. alkaline    c. neutral    d. basic

21. The continuous increase in the temperature of the earth.....

- a. aurora    b. erosion of ozone    c. global warming

22. The temperature of a height of 4 km is.....C°, if the temp at sea level is 28 C°.

- a. 20    b. -2    c. -28    d. -24

23. ....reacts fast with water and produce H<sub>2</sub> gas that burn with pop sound.

- a. Zn    b. Fe    c. Cu    d. K

24. ....is a mammal that is a midway between horse and zebra.

- a. panda    b. dodo bird    c. mammoth    d. quagga

25. when sodium react with chlorine , the formula of the result compound is.....

- a. Naf    b. NaCl    c. NaCl<sub>2</sub>    d. Nai

26. the device that is used for electrolysis of water is.....

- a. ammeter    b. voltameter    c. Hoffman's voltameter

27. the element which is lie in the third period and fifth group, the number of electrons in its ion is .....

- a. 7    b. 15    c. 18    d. 20



28. from the extinct animals in ancient period.....

- a. dinosaurs      b. panda      c. ice bird      d. rhinoceros

29. Each alkali metal lies in the.....of each period.

- a. start      b. middle      c. end      d. bottom

30. if the volume of the collected gas at the cathode in the electrical analysis of water is  $10 \text{ cm}^3$  , so the volume of the gas at the anode ..... $\text{cm}^3$

- a. 5      b. 10      c. 20      d. 30

31. A trivalent non metal element lies in the third period , the number of the electrons in the outermost level.....

- a. 5      b. 8      c. 9      d. 18

32. the.....layer has pressure equals 90 millibar.

- a. troposphere      b. stratosphere      c. mesosphere

33. from the examples of microfossils.....

- a. mammoth      b. nummulites      c. Radiolaria      d. poly podiates

34. dinosaur eggs are considered .....fossils.

- a. petrified      b. cast      c. mold      d. trace

35. the nobel gases are located in .....group.

- a. 7A      b. 8      c. 28      d. 0



36. all of the following react with with the diluted acid except.....

- a. zinc      b. iron      c. carbon      d. magnesium

37. meteors are formed in.....layer.

- a. mesosphere      b. ionosphere      c. stratosphere

38. the liquified nitrogen is used in .....

- a. saving cornea      b. food saving      c. cooling of nuclear reactor

39. fossils are found in.....rocks.

- a. igneous      b. metamorphic      c. volcanic      d. sedimentary

40. ozone degree is measured in a unit called.....

- a. millimeter      b. Dobson      c. picometre      d. nanometre

41. eating fish contain high concentration of .....cause death of brain cells.

- a. mercury      b. arsenic      c. lead      d. iron

42. the air in the troposphere layer moves.....

- a. horizontally      b. vertically      c. upright      d. inverted

43. the element, whose atomic number is 15 is similar in its chemical properties as the element whose atomic number is.....

- a. 5      b. 7      c. 17      d. 19

44. ice crystals has .....shape .

- a. pentagonal      b. hexagonal      c. octagonal



45. all of the following are greenhouse gases except .....

- a.  $\text{CO}_2$       b.  $\text{O}_2$       c.  $\text{CH}_4$       d.  $\text{N}_2\text{O}$

46. The first protectorate in Egypt is.....

- a. ras Mohamed      b. wadi el ryan      c. panda

47. the modern periodic table contain.....elements.

- a. 26      b. 92      c. 100      d. 118

48. which of the following is the halogen that exist in a solid state.....

- a. fluorine      b. iodine      c. chlorine      d. bromine

49. the device that is used for determining the elevation from sea level.....

- a. aneroid      b. altimeter      c. thermometer

50. the strongest non metal element is .....

- a. iodine      b. fluorine      c. bromine      d. aluminum

51. elements of the modern periodic table are classified into.....blocks .

- a. one      b. two      c. three      d. four



# Mini Revision

Mr. Ahmed Elbasha

## \*(1) Choose the right answer:

1.Elements of group (7 A) are known as .....

- a. inert gases.
- b. alkali metals.
- c. halogens.
- d. alkaline Earth metals.

2.Meteors are burnt in ..... layer.

- a. ionosphere
- b. stratosphere
- c. mesosphere
- d. thermosphere

3.Elements of the same period in the modern periodic table have the same .....

- a. number of energy levels.
- b. atomic number.
- c. number of electrons in the outermost energy level.
- d. valency.

4..... protectorate is the first one established in Egypt.

- a. Ras Mohamed
- b. Wadi Hetan
- c. Saint Cathrine
- d. Petrified forest

5.Metal oxides are ..... oxides.

- a. acidic
- b. basic
- c. both of them
- d. no correct answer

6.All of the following are greenhouse gases except .....

- a. CO<sub>2</sub>
- b. O<sub>2</sub>
- c. N<sub>2</sub>O
- d. CH<sub>4</sub>

7.Fossils are preserved in ..... rocks .

- a. sedimentary
- b. igneous
- c. metamorphic
- d. no correct answer

8.There are ..... bonds between water molecules.

- a. ionic
- b. covalent
- c. hydrogen
- d. metallic

9.The degree ozone layer is measured by a unit called .....

- a. km
- b. dobson.
- c. nanometre.
- d. mm

10.Fossils are often found in ..... rocks.

- a. metamorphic
- b. volcanic
- c. sedimentary
- d. igneous

11.The coldest atmospheric layer is .....

- a. troposphere.
- b. stratosphere.
- c. mesosphere.
- d. thermosphere.

12..... react very instantly with water and hydrogen gas evolves.

- a. K and Na
- b. Cu and Ag
- c. Zn and Fe
- d. Ca and Mg



**13..... is a polar compound.**

- a. Petrol                      b. Water                      c. Alcohol

**14.The main energy levels discovered by Bohr in the atom are .....**

- a.7                      b. 5                      c. 3

**15.The first layer in the atmospheric envelope above the sea level is .....**

- a. mesosphere.                      b. stratosphere.                      c. troposphere.

**16.Mammoth was preserved in .....**

- a.resinous matter.                      b. snow.                      c. mud sediments.

**17.Satellites orbit in ..... layer.**

- a. stratosphere                      b. exosphere                      c. mesosphere                      d. thermosphere

**18.Which of the following fossils indicates that the environment, where they lived was a hot and rainy tropical environment ? .....**

- a. Nummulites fossils.                      b. Ferns fossils .                      c. Coral fossils.                      d. Archaeopteryx fossils.

**19.All of the following are ozone pollutants except .....**

- a. methyl bromide gas.                      b. co2                      c. halons.                      d. CFCS

**20..... is located between stratosphere and mesosphere.**

- a. Tropopause                      b. Stratopause                      c. Mesopause                      d. Thermopause

**21..... is one of the most important causes of extinction in the recent ages.**

- a Volcanic eruption                      b. Falling of icebergs  
c. Falling of meteorites                      d. Overhunting and environmental pollution

**22.Which of the following fossils play an important role in petroleum exploration ?**

- a. Foraminifera and radiolaria.  
b. Foraminifera and trilobite.  
c. Nummulites and ammonites.

**23.The ..... is/are used in preservation of agricultural crops.**

- a. methyl bromide gas                      b. halons                      c. nitrogen oxide

**24.The coldest atmospheric layer is .....**

- a. troposphere.                      b. thermosphere.                      c. mesosphere.

**25.The elements of group ( 7A ) are known as .....**

- a. alkali metals.                      b. halogens.                      c. alkaline earth metals.



**26. Which of the following fossils indicates that the environment, where they lived was clear warm and shallow seas ? .....**

- a. Nummulites fossils .    b. Ferns fossils.    c. Coral fossils.

**27. The scientist ..... had discovered the main energy levels.**

- a. Moseley                      b. Bohr                      c. Hofmann                      d. Mendeleev

**28. The atomic number of an element that exists in group (7 A) and period (2) is .....**

- a. 12                      b. 7                      c. 9                      d. 17

**29. Each period in the periodic table starts with a/an .....**

- a. metal.                      b. metalloid.                      c. nonmetal.                      d. inert gas.

**30. .... is considered from halogens.**

- a. Sodium                      b. Chlorine                      c. Helium                      d. Calcium

**31. Ozone layer is found in ..... layer.**

- a. troposphere                      b. stratosphere                      c. mesosphere                      d. thermosphere

**32. Complete body fossils of insects are found preserved in .....**

- a. amber.                      b. snow.                      c. ocean.

**33. All of the following gases are greenhouse gases except .....**

- a. CO<sub>2</sub>                      b. O<sub>2</sub>                      c. CH<sub>4</sub>

**34. The density of ice is ..... the density of water.**

- a. less than                      b. more than                      c. equal to

**35. The normal atmospheric pressure at the sea level equals ..... millibar.**

- a. 1013.25                      b. 76                      c. 1.013

**36. From the endangered species is .....**

- a. dinosaur.                      b. bald eagle.                      c. dodo bird.                      d. quagga.

**37. All of the following metals react with water except .....**

- a. K                      b. Cu                      c. Na                      d. Mg

**38. The volume of oxygen evolved during electrolysis of water is ..... the volume of hydrogen.**

- a. equals                      b. half                      c. twice                      d. four times

**39. Bilharzia is from the harms resulted from ..... water pollution.**

- a. chemical                      b. thermal                      c. biological                      d. radiant

**40. .... fossils indicate the environment where they lived was tropical , hot and rainy.**

- a. Ferns                      b. Nummulites                      c. Coral                      d. Dinosaurs

**41. Eating fish, which contain high concentration of ..... causes the death of brain cells.**

- a. mercury                      b. arsenic                      c. lead                      d. iron

**42. The atmospheric envelope is inserted in the outer space in a region known as .....**

- a. exosphere.                      b. ionosphere.                      c. stratopause.                      d. mesopause.

**43. Ionosphere layer is surrounded by two ..... belts.**

- a. ionic                      b. electric                      c. heat                      d. magnetic

**44. The ..... replaces the wood material , part by part of an old tree.**

- a. plastic                      b. iron                      c. silica                      d. copper

**45. .... is an example of microfossils.**

- a. Mammoth                      b. Fern                      c. Foraminifera                      d. Coral

**46. The air in troposphere layer moves .....**

- a. horizontally.                      b. vertically.                      c. inclined.                      d. no right answer.

**47. Which of the following elements is located in the third period ? .....**

- a.  ${}_{19}\text{K}$                       b.  ${}_6\text{C}$                       c.  ${}_3\text{Li}$                       d.  ${}_{15}\text{P}$

**48. Bilharzia is due to the ..... pollution of water.**

- a. biological                      b. thermal                      c. chemical

**49. The atomic radius is measured in .....**

- a. nanometre.                      b. picometre.                      c. kilometre.

**50. A fossil that plays an important role in petroleum exploration is .....**

- a. morgan .                      b. nummulites.                      c. foraminifera.

**51. Ice crystals have .... shape.**

- a. tetragonal                      b. pentagonal                      c. hexagonal

**52. The element, whose atomic number is (15) is similar in its chemical properties as the element whose atomic number is .....**

- a. 5                      b. 7                      c. 17                      d. 19

**53. Meteors are formed in .....**

- a. thermosphere.                      b. mesosphere.                      c. stratosphere.                      d. troposphere.

**54. Microfossils like .....**

- a. mammoth.                      b. ferns.                      c. foraminifera.                      d. archaeopteryx.

**55. .... protectorate is a natural protectorate in USA where grey bear is protected.**

- a. Ras Mohamed                      b. Wadi El-Raiyan                      c. Bluestone                      d. Panda

**56. Ozone layer prevents (100 %) of ..... ultraviolet rays from passing to the Earth.**

- a. near                      b. medium                      c. far d. (a) and (b) together

**57. From the complete body fossils is .....**

- a. mammoth.                      b. nummulites.                      c. fish.

**58. The number of elements in the Earth's crust equals .....**

- a. 118                      b. 92                      c. 120

**59. .... is/are used in extinguishing fires.**

- a. Methyl bromide                      b. Halons                      c. Nitrogen oxides                      d. UV radiation

**60. The second layer of atmosphere is called .....**

- a. mesosphere.                      b. troposphere.                      c. stratosphere.                      d. thermosphere.

**61. The transition elements start to appear from the beginning of the .... ..... period.**

- a. second                      b. third                      c. fourth                      d. fifth

**62. All of the following are from endangered species except .....**

- a. papyrus plant.                      b. bald eagle.                      c. quagga.                      d. rhinoceros.

**63. p-block contains ..... groups.**

- a. 10                      b. 2                      c. 6                      d. 8

**64. The inert gas that has the same electronic structure as (Na<sup>+</sup>) is .....**

- a. 10Ne                      b. 2He                      c. 18Ar                      d. 17Cl

**65. The modern periodic table contains ..... elements.**

- a. 26                      b. 92                      c. 100                      d. 118

**66. Which of the following is an acidic oxide ? .....**

- a. CO<sub>2</sub>                      b. MgO                      c. Na<sub>2</sub>O                      d. FeO

**67. Which of the following is a radioactive element which is used in food preservation ?**

- a. Liquid sodium.                      b. Liquefied nitrogen.  
c. Cobalt 60.                      d. Water.

**68. Water has high boiling point due to the presence of ..... bonds between its molecules.**

- a. hydrogen                      b. ionic                      c. covalent                      d. metallic

**69. .... added group zero in his table for noble gases.**

- a. Mendeleev                      b. Moseley                      c. Rutherford                      d. Einstein

**70. Which of the following is the halogen that exists in a solid state ? .....**

- a. Fluorine.                      b. Chlorine.                      c. Bromine.                      d. Iodine.

**71. When putting a glass bottle completely filled with water in the freezer, it breaks because when water freezes its ..... increases.**

- a. temperature      b. density      c. volume      d. acidity

**72. Which of the following elements don't react with water ? .....**

- a. K and Na      b. Ca and Mg      c. Zn and Fe      d. Cu and Ag

**73. What is the volume of hydrogen gas evolved from electrolysis of acidified water if you know that the volume of oxygen gas evolved is  $2 \text{ cm}^3$  ? .....**

- a.  $1 \text{ cm}^3$ .      b.  $2 \text{ cm}^3$ .      c.  $4 \text{ cm}^3$ .      d.  $6 \text{ cm}^3$

**74. From the extinct species is .....**

- a. dodo bird.      b. lion.      c. panda.

**75. The device that is used for determining the elevation from sea level is .....**

- a. aneroid .      b. altimeter.      c. thermometer.

**76. The atmospheric pressure on the top of a mountain is ..... the atmospheric pressure at the sea level.**

- a. more than      b. less than      c. equal to

**77. Luminous meteors are formed in ..... layer.**

- a. ionosphere      b. stratosphere      c. exosphere      d. mesosphere

**78. The transitional elements start to appear from period .....**

- a. 2      b. 3      c. 4      d. 5

**79. An example of microfossils is .....**

- a. mammoth.      b. ferns .      c. radiolaria.      d. archaeopteryx.

**80. When sodium reacts with water ..... gas evolves.**

- a.  $\text{N}_2$       b.  $\text{O}_2$       c.  $\text{H}_2$

**81. .... is considered from halogens.**

- a. Sodium      b. Chlorine      c. Helium

**82. Aluminum oxide from ..... oxides.**

- a. amphoteric      b. acidic      c. nonmetallic      d. basic

**83. Sodium oxide from ..... oxides.**

- a. amphoteric      b. acidic      c. basic

**84. Each period in the modern periodic table starts with (a/an) ..... element.**

- a. metallic      b. inert      c. nonmetallic

**85. The elements of group (1A) are known as .....**

- a. alkali metals.      b. halogens.      c. alkaline Earth metals.



**Model Answer****\* (1) Choose the right answer:**

1. C
2. C
3. A
4. A
5. B
6. B
7. A
8. C
9. B
10. C
11. C
12. A
13. B
14. A

15. C
16. B
17. B
18. B
19. B
20. B
21. D
22. A
23. A
24. C
25. B
26. C
27. B
28. C
29. A
30. B
31. B
32. A
33. B
34. A

35. A
36. B
37. B
38. B
39. C
40. A
41. C
42. A
43. A
44. C
45. C
46. B
47. D
48. A
49. B
50. C
51. C
52. B
53. B
54. C

55. A
56. C
57. A
58. B
59. B
60. C
61. C
62. C
63. C
64. A
65. D
66. A
67. C
68. A
69. B
70. D
71. C
72. D
73. C
74. A

75. B
76. B
77. D
78. C
79. C
80. C
81. B
82. D
83. C
84. A
85. A

# **Choose the correct answer**

1-meteors burns in .....(mesosphere –ionosphere – stratosphere )

2-all of theses Green house gases except.....( $\text{CO}_2$  -  $\text{O}_2$  - $\text{N}_2\text{O}$  – $\text{CH}_4$ )

3-from endangered species .....(dinosaur – bald eagle – dodo bird )

4-ozone degree is measured by .....unit

(millibar – nanometer – Dobson – picometre )

5-.....has highest electronegativity (fluorine – cesium – lithium )

6-all of the following elements are metalloids except .....

(silicon - boron - bromine )

7- mammoth fossil is an example of .....fossil

(cast – mold – complete body )

8-the scientist .....had discovered main energy levels

(Moseley - Hoffman – bohr – Mendeleev )

9-.....is an example for microfossil

(mammoth – ferns – foraminifera )

10-the air in troposphere layer moves.....

( horizontally –vertically – inclined )

11-which of the following elements is located in third period .....

**(19K – 6C – 15P )**

**12-Bilharzia is due to the .....pollution of water**

**(biological – thermal - chemical )**

**13-ice crystals have .....shape**

**(hexagonal – pentagonal – tetragonal )**

**14-the atomic radius is measured in.....**

**(picometre – kilometer – nanometer)**

**15-.....is the first protectorate in Egypt**

**(Ras Mohamed – Wadi Elhetan – panda )**

**16-transition element starts to appear from the beginning of the.....  
..... period**

**(fourth – third – fifth )**

**17-.....is used in extinguishing fires**

**9methyl bromide – halons - nitrogen oxide )**

**18-P block contains .....groups**

**(10 – 2 – 6 )**

**19-which of the following is an acidic oxide ? .....**

**(CO<sub>2</sub> – MgO - Na<sub>2</sub>O )**

**20-There are .....bonds between water molecules**

**(covalent – ionic – hydrogen )**

**21-fossils are preserved in .....rocks**

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Preparatory two

(sedimentary – metamorphic – ingenious )

22-we used .....to determine altitude of planes

(aneroid – altimeter – thermometer )

23-hottest atmospheric layer is .....(stratosphere-mesosphere – thermosphere )

24-the coldest atmospheric layer .....

(stratosphere-mesosphere – thermosphere )

25-strongest metal locates in group .....(7A-1A-Zero )

26-ozone layer prevents .....rays to transmit by 100%

(near – medium – far )

27-the gas which is evolved on reacting alkali metal with water is .....

(oxygen – hydrogen – nitrogen )

28-metal oxides are .....oxides

(acidic – basic – both of them )

29-.....react instantly with water and hydrogen gas evolves

(K and Na – Cu and Ag – Zn and Fe )

30-.....is a polar compound ( petrol – water – alcohol )

31-mendeleev arranged elements according to .....

(atomic weight – atomic number – electronegativity)

32-each period starts with .....



(metal – non-metal –inert gas )

33-.....is a halogen

(sodium – chlorine – helium )

34-complete body of insect is preserved in .....

(amber – snow – ocean )

35- mammoth fossil is preserved in .....(amber –snow –ocean )

36- .....fossils play important role in petroleum exploration

(foraminifera – radiolaria – both of them )

37-the element of group (7A ) Are known as .....

(halogen – alkali – metalloid )

38- we used .....to preserve food because it emits gamma rays  
can kill microbes

(Co 60 – Si – liquefied nitrogen )

39-.....extinct bird ( bald eagle – dodo bird – ibis bird )

40-.....fossil that is used to indicate the environment ,where  
they lived was tropical, hot and rainy

(nummulite – ferns – coral )

41-the volume of oxygen evolved during electrolysis of water  
.....the volume of hydrogen

(equal – half – twice )

42-temperature decreases every 1KM by .....degree

(13 – 6.5 – 3 )

43-number of elements in modern table is .....

(67 – 100 – 118 )

44- .....is the most important pollutant of ozone layer  
(CFCs – halons – methyl bromide )

45-.....layer is responsible for radio stations  
(exosphere – ionosphere – stratosphere )

46-strongest metal is .....(fluorine – cesium – lithium )

#### Model answer

1- a 2-b 3 –b 4-c 5-a 6-c 7-c 8-c 9-c 10-b 11-c 12-a 13-a 14-a

15-a 16-a 17-b 18- b 19-a 20-c 21-a 22-b 23-c 24-b 25-b 26 –c

27-b 28-b 29-a 30-b 31-a 32-a 33-b 34-a 35-b 36-b 37-a 38-a

39-b 40-b 41 –b 42-b 43-c 44-a 45-b 46-b

**GOOD LUCK**



## FINAL REVISION

Prep Two

Choose the right answer:

1-When Sodium reacts with chlorine, the formula of the resulted compound is —

a)NaF

B-NaCl

C- Na<sub>2</sub>O

D-NaI

2-The device which used in the electrical analysis of water is —

a)Ammeter

B-Voltmeter

C- Hoffman Voltmeter

D-Aneroid

3-The element which is lie in the third period and the fifth group the number of electrons in its ion is —

a)7

B-15

C- 18

D -20

4-The Ozone layer lies in —

a)Thermosphere

B-Stratosphere

C-Troposphere

D-Mesosphere

5-There are complete fossils preserved inside —

a)Ammonites

B-Amber

C- Igneous rocks

D- Ice

6-From extinct animals in ancient period.....

a)Dinosaurs

B-Panda

C-Rhinoceros

D-Dodo bird





## FINAL REVISION

Prep Two

**Choose the right answer:**

**1-Each Alkali metal lies in the ——— of each period**

- a)start      b)middle      c)end      d)bottom

**2-If the volume of the collected gas at the cathode in the electrical analysis of water is 10 cm<sup>3</sup>,so the volume of the gas at the anode ,——cm<sup>3</sup>**

- a)5      b)10      c)20      d)30

**3-A trivalent non-metal element lies in the third period,  
the number of electrons of its outermost energy**

- a)5      b)8      c)9      d)18

**4-The..... layer has pressure equals 90 millibar.**

- a)Thermosphere      b)Stratosphere      c)Troposphere      d)Mesosphere

**5-From the examples of microfossils .....**

- a)Mammoth      b)poly podiales      c)Foreminefra      d)Nummulite

**6-Dinasour eggs are considered ..... fossils**

- a)Petrified      b)Cast      c)Mol      d)Trace





## FINAL REVISION

Prep Two

**Choose the right answer:**

**1-The noble gases are located in ..... group.**

- a) 7A      b) 8      c) 2B      d) Zero

**2-Each of the following elements react with the diluted acids except ....**

- a) Zinc      b) Iron      c) Carbon      d) Magnesium

**3-Meteors are formed in .....**

- a) Mesosphere      b) Ionosphere      c) Exosphere      d) Stratosphere

**4-From the endangered creatures is .....**

- a) Dinosaurs      b) Quagga      c) Dodo birds      d) Panda

**5-The liquid Nitrogen is used in ..... reactor**

- a) saving cornea      b) cooling of nuclear reaction  
c) manufacturing of foam boxes      d) food saving

**6-Fossils are found in ..... rocks.**

- a) metamorphic      b) sedimentary      c) volcanic      d) igneous

1-.....gas is from the most dangerous greenhouse gases.

- a-  $\text{CO}_2$ .                      b-  $\text{O}_2$ .                      c-  $\text{H}_2$ .                      d- Ne

2-All of the following are extinct species except .....

- a- dodo bird.                      b- quagga.                      c- bald eagle.                      d- mammoth

3-Ozone layer are formed in .....layer.

- a-troposphere.                      b-stratosphere.                      c-mesosphere.                      d-thermosphere

4-Inert gases are found in.....

- a- S-block                      b- P-block                      c- D-block                      d- F-block

5-..... bond is formed between water molecules.

- a-Covalent                      b- Ionic                      c-Hydrogen                      d-light

6-..... is a reason of mass (old) extinction.

- a-overhunting                      b-Pollution                      c- destroying natural habitat                      d-Ice age

7-Complete body fossils of insects are preserved in.....

- a-amber.                      b-snow.                      c-ocean.

8-The modern periodic table consists of .....groups.

- a-22.                      b-17                      c-18

9-The ozone degree is measured in .....unit.

- a-millibar.                      b-Dobson.                      c-nanometer.

10-Atmospheric pressure ..... as we go up.

- a-increases                      b-decreases                      c-doesn't change                      d-No correct answer

11-..... is considered from extinct species.

- a- Panda                      b-Bald eagle                      c-Ibis bird                      d- Dodo bird

12-.....is found in period 4 and group 2A in the modern periodic table.

- a- $_{11}\text{Na}$                       b- $_{13}\text{Al}$                       c- $_{18}\text{Ar}$                       d- $_{20}\text{Ca}$

13-..... is used to determine day weather.

- a.Atomic radius                      b. Aneroid                      c. Altimeter                      d. electric heater

14-Safe area the made to protect endangered species is .....

- a.protectorate                      b. mold                      c. desert                      d. North pole.

15-All the following are alkali metals except .....

- a. $_{18}\text{Ar}$                       b.  $_{11}\text{Na}$                       c.  $_{3}\text{Li}$                       d.  $_{19}\text{K}$



16-Pollution of water with .....causes blindness.

- a.lead                      b. hydrogen              c. human wastes              d. mercury

17-Infrared rays have a ..... effect.

- a.Chemical              b. thermal              c. biological              d. sound

18-.....fossil is a link between birds and reptiles.

- a.Mammoth              b. Amber              c. Fern              d. Archaeopteryx

19-All of the following are endangered species except .....

- a-ibis bird.              b-quagga.              c-bald eagle.              d-Ibis bird

20-The scientist .....had discovered the energy sublevels.

- a-Rutherford.              b-Moseley.              c-Bohr              d-Dobson

21-Ionosphere is found in the upper part of .....layer.

- a-thermosphere.              b-stratosphere.              c-mesosphere.              d-Troposphere

22-In the modern periodic table,  $_{10}\text{Ne}$  is found in period 1 and group .....

- a-1A              b- 2A              c- 3A              d- zero

23-.....is from the negative effects of global warming.

- a- Climatic changes              b-Aurora              c-Ultraviolet rays              d-Atmospheric pressure.

24-Microfossils are used in .....exploration.

- a-space              b. oceans              c. Human body              d. petroleum

25-The modern periodic table consists of .....blocks.

- a-4.              b-7              c-18              d- 10

26-The atmospheric pressure measured in .....unit.

- a-bar.              b-Dobson.              c-nanometer.              d- gm

27-All of the following are endangered species except.....

- a-ibis bird.              b-bald eagle.              c-dinosaur.              d-panda bear

28-By increasing the atomic number in the period, atomic size .....

- a-increases              b-decreases              c-doesn't change              d-no correct answer

29-Luminous .....are formed in mesosphere due to friction with air molecules.

- a-Cosmic radiations              b- ultraviolet rays              c- Infrared rays              d- meteors

30-..... is considered from extinct animals in old times.

- a.Quagga              b. Dodo bird              c. Mammoth              d. Arwa ram

31. .... Indicates extinction.

- a. Fossils                      b. Protectorates                      c. Ecosystem                      d. Van-allen belts

32. Elements of group (1A) are known as .....

- a. halogens                      b. alkali metals                      c. inert gases                      d. active gases

33. .... is considered as the coldest layer.

- a. Thermosphere                      b. Mesosphere                      c. Stratosphere                      d. Troposphere

34-..... is the most metallic element in group 1A.

- a. Sodium                      b. Bromine                      c. Lithium                      d- Cesium

35-..... causes the increase of the Earth's temperature.

- a. Ultraviolet rays                      b. Infrared rays                      c. Cosmic radiations                      d-Ionosphere

36-Pollution of water with wastes of man and animals causes .....

- a. death of hmin cells                      b. blindness                      c. liver cancer                      d. hepatitis

37-All of the following are extinct species except.....

- a. dodo bird.                      b. Ibis bird.                      c. dinosaur.                      d. Mammoth

38-Non metal oxides dissolve in water forming ..... solution.

- a-acidic.                      b-alkaline                      c-neutral                      d.basic

39- The continuous increase of the temperature of Earth.

- a. Erosion of ozone                      b. Aurora                      c. Global warming.                      d. Atmospheric pressure.

40-The temperature at a height of 4km is ..... °C., if the temp at sea level is 28°C.

- a. 20                      b. -2                      c. -28                      d. -24

41-..... reacts fast with water and produces H<sub>2</sub> gas that burns with pop sound.

- a. Zn                      b. Fe                      c. Cu                      d. K

42-..... is a mammal that is a midway between horse and zebra.

- a. Panda                      b. Arwa ram                      c. Mammoth                      d. Quagga

43-..... is used to preserve eye cornea.

- a. Liquefied nitrogen                      b- Sodium                      c. Cobalt 60                      d. silicon

44- Atmospheric ..... is the weight of air column on a unit area.

- a. pressure                      b. envelope                      c. layer                      d. rays

45-An ecosystem that contains few members and is affected much by extinction.

- a. Tropical forest                      b. complicated ecosystem                      c. Simple ecosystem                      d. ocean



46-Burning coal (carbon) in air produces ..... gas.

- a.  $O_2$                       b.  $H_2$                       c.  $N_2$                       d.  $CO_2$

47-Methyle bromide gas is used in .....

- a. food preservation      b. electronics      c. petroleum exploration      d. insecticides

48-.....indicates an activity of old living organism during its life.

- a. Mold                      b. Cast                      c. Trace                      d. Remain

49- During the electrolysis of water by Hofmann's voltameter, ..... gas evolves at the anode.

- a. Hydrogen                      b. Oxygen                      c. Nitrogen

50- From the causes of the ozone hole .....

- a. Freon                      b.  $CO_2$                       c. Methane

51- They are fossils which are formed as a result of replacing the organic matter of wood by the silica .

- a. Mammoth                      b. Ammonite                      c- Petrified wood                      d- Amber

52-Mendeleev arranged elements in his table according to .....

- a. Atomic number                      b. Atomic weight                      c. Energy levels                      d. Ions

53- Air moves vertically in.....layer.

- a. Thermosphere                      b. Mesosphere                      c. Stratosphere                      d. Troposphere

54-The path of energy from living organism to another in the ecosystem is.....

- a. extinction.                      b. protectorate.                      c. green plants.                      d. remains.

55-It is the replica of the internal details of an old living organism.

- a. Mold                      b. Amber                      c. Trace                      d. Mammoth

56- ..... pollution is caused due to the contamination of water with wastes of man or animals.

- a. Thermal                      b. Radiant                      c. Biological                      d. chemical

57-Atmospheric pressure .....by increasing the height over sea level.

- a. Increases                      b. decreases                      c. is constant                      d. no correct answer

58-Melting of ice at poles is from the negative effects of.....

- a. erosion of ozone                      b. ultraviolet rays                      c. cosmic radiations                      d. global warming

59-In the electrolysis of acidified water, The volume of hydrogen is ..... the volume of oxygen.

- a. equal                      b. double                      c. triple                      d. Half

60-.....elements have common properties of metals and non metals.

- a. Halogens                      b. Alkali metals                      c. Lanthanides                      d. Metalloids